Passaic River Community Advisory Group Technical Assistance Request Suggested Edits by EPA; 4/19/12

1. The Passaic River Community Advisory Group (CAG) understands that there are various technologies available for decontaminating sediments. The two technologies that have been tested in the past using Passaic River sediments are sediment washing and thermal treatment. Some members of the CAG have been uncomfortable with results of these tests on Passaic River sediments as reported by the vendors that conducted the tests , feeling that the information was incomplete and untested in treating large amounts of material. The CAG Subcommmittee would like independent technical experts who are not vendors to provide us with an analysis of the strengths and limitations of sediment washing and thermal treatment and provide recommendations on evaluation of other possible sediment decontamination technologies .

   Review tasks include:

   a. Brief summary of the technologies and where they have been used before,
   b. Summary of the sediment decontamination bench scale and/or pilot tests being developed or implemented by the Cooperating Parties Group for River Mile 10.9 sediment removal action in Lyndhurst, New Jersey
   c. A review of the reports listed below in relation to the Passaic River Superfund Project (lower 17 miles of the Passaic River)
   d. Identification of sediment decontamination vendo permits and/or construction plans for decontamination facilities in the Newark Bay/Passaic River region, if available
   e. Identification of other possible reports and information that describe sediment decontamination technologies, processes, construction, waste streams, etc. of the decontamination technology(ies). Identified reports would be considered for use in a possible second phase independent technical review.
   f. Assessment of the capacity of each technology to scale up to handle large loads of sediment, including processing time and estimated logistical needs of the technology (including acreage for the decontamination facility(ies)).
   g. Listing of emissions and by-products of each technology.
   h. Make recommendations on other decontamination technologies that might be suitable to use to treat Passaic River sediments, if any are found during research.
   i. Evaluate the beneficial use end-products that are commercially viable.

      Technical review experts need expertise in air quality monitoring, organic contaminant chemistry and preferably, environmental engineering.

   Analysis would include the candidates that have responded to USEPA Region 2's request for interested parties to treat the contaminated sediment at River Mile 10.9, in addition to the "Cement Lock" process (Volcano Properties, LLC) and the Biogenesis process.

2011 reports available from USEPA, Region 2, and all other reports available at:

http://www.bnl.gov/wrdadcon/publications/reports/report.htm

and

http://www.state.nj.us/transportation/airwater/maritime/dresediment.shtm

Main Reports to review:

BioGenesis Enterprises, Inc. 2011. Approach to Sediment Decontamination for Lower Passaic River Using the BioGenesis Sediment Decontamination Technology. July 15, 2011.

BioGenesis Washing BGW, LLC. 2009. Demonstration Testing and Full-Scale Operation of the Biogenesis Sediment Decontamination Process, Final Report. December 17, 2009.

Tetra Tech, Inc. 2011. Summary of Project and Design Updates for Cement-Lock Technology Manufacturing Plant. Memorandum from S. McGee, Tetra Tech to A. Hendricks, Volcano Partners. November 30, 2011.

Gas Technology Institute. 2008. Cement-Lock Technology for Decontaminating Dredged Estuarine Sediments, Final Project Report. November 2008.

Endesco Clean Harbors, LLC. 2008. Sediment Decontamination Demonstration Program – Cement-Lock Technology, Final Report: Phase II Demonstration Tests with Stratus Petroleum and Passaic River Sediments. July 2008.

Gas Technology Institute. 2008. Cement-Lock Technology for Decontaminating Dredged Estuarine Sediments, Topical Report on Beneficial Use of Ecomelt from Passaic River Sediment at Montclair State University, New Jersey. April 2008.

Optional Reports:

Endesco Clean Harbors, LLC. 2006. Sediment Decontamination Demonstration Program: Cement-Lock Technology Phase I Pilot Test, Final Report. August 2006.

Endesco Clean Harbors, LLC. 2007. Sediment Decontamination Demonstration Program – Cement-Lock Technology, Topical Report: Phase II – Equipment Modifications and Confirmation Test with Sediment from the Stratus Petroleum Site. October 2007.

Gas Technology Institute and Endesco Clean Harbors, LLC. 2007. Technical Memorandum, Cement-Lock Technology for Decontaminating Dredged Estuarine Sediments: Phase II – Demonstration-Scale Project. November 2006-March 2007.

Gas Technology Institute. 2008. Memorandum, Cement-Lock Update. March 27, 2008.